In practice, such a device is designed to withstand tensions of the order of 2 500 Newtons, while the first embodiment involving only upward projecting lugs as represented in Figure 4 permits longitudinal loads of the order of 500 Newtons.

Figure 5b also illustrates a variant embodiment of the mechanical link between the sections C''(i), C''(i+1) and the respective inserts 145a, 145b of the respective adapters 140a, 140b. To withstand sizeable tensions, each cable section can be reinforced with an additional sheath 190a, 190b made of Kevlar (registered trademark) whose end adjacent to the corresponding adapter 140a, 140b exhibits a thickening 1900a, 1900b clamped in a respective conical nut mechanism 191a, 191b embedded in the overmolding of the respective adapter.

The geometrical configuration of the casing represented in Figures 5a and 5b is a little different from that of the casing of Figure 4. Specifically, in this instance, the port P for connecting a measurement point is not situated perpendicularly to the upper face of the cover 170 of the casing, but is slanted. This characteristic in no way modifies the functionalities of the casing.

Also represented in Figures 5a and 5b are the means making it possible to guarantee the leaktightness of the device which may be exposed to aggressive surroundings involving for example dust or water liable to penetrate the casing and damage its components.

Accordingly, there is provided an O-ring seal 1100 disposed in a bore of the cover 170 and intended to guarantee the leaktightness between the cover 170 and the platen 150. There is also provided an O-ring seal 1101a housed in a circular cavity flush with the upper face of the adapter 140a and surrounding the orifice made in the platen 150 which faces the conduit 142a for

the passage of the conductors 141a when the platen 150 is sitting on the adapter.

This seal 1101a thus guarantees the leaktightness of the passage of the conductors 141a. Likewise, an O-ring seal 1101b is provided in a circular cavity emerging on the upper face of the adapter 140b so as to guarantee the leaktightness of the passage of the pin 141b.

Figures 6a and 6b depict a third embodiment of a casing B''.

Figure 6b reveals two adapters 140a and 140b intended to be assembled by way of the lugs 143 and the platen 150.

This figure also shows two electrically conducting plates 1400a and 1400b housed in respective recesses of the upper faces of the two adapters in such a way as to lie along the extension of said upper faces.

These two plates are made in one piece each with two axes which cannot be seen in the figure, housed in conduits which pass through the upper wall of the adapter so as to place each plate in electrical communication with the circuit carrying the means of processing the signals of the insert of the associated adapter.

Figure 6b also shows a metallic and electrically conducting strap 1401 intended to be mounted on the lower face of the casing, the bent-back ends of its two branches (of which only branch 1402 is visible in the figure) being engaged in cavities 171 of the lid 170 when the casing is mounted, so as to further improve the cohesion of the assembly.

In Figure 6b it will be observed that the adapters 140a and 140b define when they are assembled a central well 1403 which passes right through the assemblage formed by the two adapters and emerges toward the bottom of the casing on the strap 1401.

This strap 1401 also comprises an orifice 1404 aligned with the well 1403 when the strap is mounted on the casing.

A metal finger 1405 visible in Figure 6b is engaged, when the device is mounted, in the orifice 1404 and the well 1403 in such a way as to come into contact with the plates 1400a and 1400b. This finger is electrically conducting and thus allows the strap 1401 to be linked electrically to the circuits of the inserts of the two adapters carrying the means of processing the signals, by way of the finger 1404 and of the plates 1400a and 1400b.

The finger 1405 can be secured with a spike (not represented), also electrically conducting and intended to be driven into the ground, said spike then simultaneously ensuring:

- the securing of the casing B'' to the ground when used on land,
- and the earthing of the circuits of the inserts carrying the means of processing the signals by way of the strap 1401 which thus constitutes an earth strap.

When employed at sea, the device does not comprise any spike associated with the finger 1405 which is in contact with the water as well as the strap 1401, these two elements thus also effecting the earthing of the circuits of the inserts.